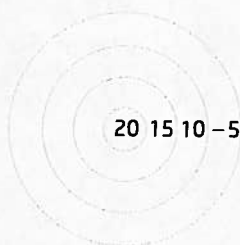


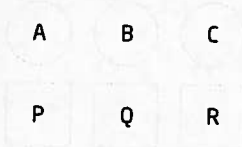
Chapter 1 Review

For each question, try to use the most appropriate tools, computational methods, and problem solving strategies. Provide complete justification for each solution.

- Continue each pattern for three more terms. Describe how to find successive terms.
 - 12, 9, 6, 3
 - 7, 14, 28
 - 5, 6, 8, 11
 - 3, -1, -6, -12
- A fence will be built to enclose a 100-m by 70-m field. It will need a post at each corner and one every 5 m. How many posts are needed?
- An archery target has points as shown.



- Describe a strategy to determine how many different scores are possible with three arrows.
 - Use your strategy to find the different possible scores.
- Three houses, A, B, and C, are to be connected to hydro, cable TV, and telephone wires, labelled as P, Q, and R, without the wires crossing each other. Can this be done? If yes, show the solution. If not, explain why.



- Plot the points E(4, 5), F(7, 0), and G(1, -4). Find all locations of the point H so that EFGH is a parallelogram.

- How many squares of all sizes are there in this diagram? What strategy did you use?



- Dave is meeting his friends at 7:30 P.M. The average speed of the bus is 28 km/h, and he needs to travel 20 km. When should he catch the bus? Describe your strategy and whether it was appropriate.
- A rectangular yard measures 8 m by 6 m. What happens to the area if each dimension is doubled?
 - Use an appropriate tool to illustrate what happens to the area of any rectangle when its dimensions are doubled.
- What power of 7 is 40 353 607? Describe your strategy.
- Find three consecutive integers that have a sum of -402. Describe your strategy.
- Evaluate.
 - $\frac{2}{5} + \left(-\frac{3}{7}\right)$
 - $-\frac{2}{9} - \left(-\frac{1}{6}\right)$
 - $-\frac{2}{3} \times \frac{1}{4}$
 - $\frac{7}{12} \div \left(-1\frac{3}{4}\right)$
- Using only fractions between -1 and 1, find three different solutions to $A + B + C = -\frac{7}{12}$.

- A bracelet is to be made from 2 red and 5 blue beads. How many different bracelets can be made? Describe your strategy.

